REMARKS/ARGUMENTS

Claims 47-75 are pending in the present application. The Office Action mailed January 3, 2007 rejected claims 47-75 under 35 U.S.C. § 103(a). Reconsideration is respectfully requested in view of the above amendments to the claims and the following remarks.

A.   Claims 47-51, 54-61, 64-70 and 73-75 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected claims 47-51, 54-61, 64-70 and 73-75 under 35 U.S.C. § 103(a) based on U.S. Patent No. 6,226,665 to Deo et al. (hereinafter, "Deo") in view of U.S. Patent No. 6,446,203 to Aguilar et al. (hereinafter, "Aguilar"), and further in view of U.S. Patent Application Publication No. 2003/0078963 to Parry (hereinafter "Parry"). In view of the above amendments to the claims and the following remarks, Applicants respectfully request that this rejection be withdrawn.

The M.P.E.P. states that

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

> The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

M.P.E.P. § 2142.

Applicants respectfully submit that the claims at issue are patentably distinct from the cited references. The cited references do not teach or suggest all of the limitations in these claims.

Independent claim 47 is directed to a "multi-functional peripheral comprising a printer." Deo, the primary reference that is relied upon in the Office Action, is directed to a type of device that is far different from the "multi-function peripheral" that is recited in claim 47. Deo relates to "a combination pager and data management device." Deo, col. 4, line 10. In contrast to a "multi-function peripheral," the device of Deo is described as having a "very limited amount[] of RAM." Id., col. 2, lines 8-9. Deo indicates that "[i]n this device only 1-2 Kbytes of static random access memory (RAM) are available to load [code] for execution by the processor." Id., abstract.

The Office Action correctly recognizes that Deo is not directed to a "multi-function peripheral comprising a printer." However, the Office Action cites Parry, which is directed to a "system and method of automated posting of an image printed to a sender printer." Parry, abstract. The Office Action asserts that it "would have been obvious ... to incorporate the teachings of Parry into the Deo/Aguilar system to incorporate a printer. The modification would have been obvious because one of ordinary skill in the art would have wanted the flexibility of loading different types of software at startup time on a printer." Office Action, page 8. Applicants respectfully disagree.

The cited references provide no motivation to combine the teachings of Parry with the teachings of Deo. Deo discloses a method for "partial program loading" that is described as being applicable to a pager device that has a "very limited amount[] of RAM." Deo, col. 2, lines 8-9. The method for "partial program loading" is designed to compensate for the limited amount of RAM in the pager device. Although Parry discloses a printer, Applicants cannot find any portion of Parry which suggests that the disclosed printer could benefit from the method of Deo. Applicants cannot find any portion of Parry which relates at all to conserving memory resources on the disclosed printer. Applicants also cannot find any portion of Deo which suggests that the disclosed method for "partial program loading" could be applied to a "multi-function peripheral comprising a printer."

Claim 47 recites that the claimed "multi-function peripheral" comprises "non-volatile memory" that comprises "a plurality of individual software components." Claim 47 also recites "a loading table that indicates which of the plurality of individual software components are loaded into

the volatile memory and which of the plurality of individual software components are not loaded into the volatile memory."

Deo does not teach or suggest a "loading table" as recited in claim 47. The Office Action refers to a portion of Deo which states:

> The present invention divides the p-code[1] into modules or software components. Operating as a state machine, specific modules of p-code are swapped into the RAM of Nomad for execution by the CPU so that an extremely small run-time footprint in memory is required when executing an applet.

Deo, col. 5, lines 38-42. The Office Action refers to the statement that the disclosed pager device "[o]perat[es] as a state machine," and asserts that Deo teaches a "loading table" as recited in claim 47. Office Action, page 5. Applicants respectfully disagree. Simply stating that a device "[o]perat[es] as a state machine" is not the same as stating that a device includes a "loading table" within the meaning of claim 47.

The term "state machine" is defined by TechEncyclopedia[2], an online technical dictionary, as:

> [A] computing device designed with the operational states required to solve a specific problem. The circuits are minimized, specialized and optimized for the application. For example, chips in audio, video and imaging controllers are often designed as state machines, because they can provide faster performance at lower cost than a general-purpose CPU.

As can be seen from this definition, the term "state machine" is a very general term that can be interpreted as referring to many things. A statement that simply refers to a "state machine" does not teach or suggest a "loading table" within the meaning of claim 47. The "loading table" in claim 47 includes very specific limitations, namely that the "loading table ... indicates which of the plurality of individual software components are loaded into the volatile memory and which of the plurality of individual software components are not loaded into the volatile memory." Deo's mere reference to a "state machine" does not teach or suggest these limitations.

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[1] This is an abbreviation for "pseudo-code" that is used throughout Deo. Deo states that the disclosed pager device includes "a processor that executes pseudo-code (p-code)...." Deo, col. 1, lines 36-37.

[2] *See* http://www.techweb.com/encyclopedia (searched on term "state machine") (accessed March 27, 2007).

Claim 47 also recites that the claimed "multi-function peripheral" is configured to "load each of the plurality of individual software components that are to be loaded, as indicated in the loading table, into the volatile memory." The Office Action refers to col. 2, lines 46-64 of Deo in connection with this claim element. This portion of Deo states:

> A first portion of the variables and the event handler for the software application are loaded from a storage memory that is not used for execution of the application, into a RAM of the system and are executed from the RAM using the processor. Any change in a state of the system and any new event is detected by the processor while it executes the software components loaded into the RAM. In response to either a change in the state of the system or a new event, another software component is loaded into the RAM for execution by the processor, replacing at least one of the software components previously loaded. These steps repeat until execution of the software application is terminated.

Deo, col. 2, lines 46-64. As can be seen, this portion of Deo teaches that software components are replaced by other software components in the RAM of the pager device of Deo.

Claim 47 has been amended to recite that "the plurality of individual software components that are to be loaded ... are all loaded into the volatile memory at the same time." This amendment is supported by page 11, lines 18-25 of Applicants' specification, and Figure 7 of Applicants' drawings. Deo does not teach or suggest this limitation. As indicated above, Deo refers to "software components loaded into the RAM." However, the software components in the pager device of Deo are not "loaded into the volatile memory at the same time," as recited in amended claim 47. Instead, Deo teaches that when one "software component is loaded into the RAM," it "replac[es] at least one of the software components previously loaded." Deo, col. 2, lines 60-64.

Claim 47 has also been amended to recite that "the individual software components that are loaded into the volatile memory correspond to a configuration of the multi-function peripheral," and that "the individual software components that are not loaded into the volatile memory do not correspond to the configuration of the multi-functional peripheral." This amendment is supported by page 3, lines 22-24 of Applicants' specification. Deo does not teach or suggest this limitation. As discussed above, Deo refers to "software components loaded into the RAM." However, as indicated

above, these "software components" are simply portions of an applet. There is no teaching or suggestion that the "software components" have anything to do with any type of "configuration," as required by amended claim 47.

The other references cited in the Office Action, Aguilar and Parry, also do not teach or suggest the claim elements referred to above as being missing from Deo. In fact, both Aguilar and Parry were cited in connection with entirely different claim elements.

In view of the foregoing, Applicants respectfully submit that claim 47 is patentably distinct from the cited references. Claims 48-51 and 55-56 depend either directly or indirectly from claim 47, and are therefore patentably distinct from the cited references for at least the same reasons. Accordingly, Applicants respectfully request that the rejection of claims 47-51 and 55-56 be withdrawn.

Independent claims 57 and 67 have been amended similarly to independent claim 47. Claims 58-61 and 64-66 depend either directly or indirectly from independent claim 57. Claims 68-70 and 73-75 depend either directly or indirectly from independent claim 67. Accordingly, Applicant respectfully requests that the rejection of claims 57-61, 64-70 and 73-75 be withdrawn for at least the same reasons as those presented above in connection with independent claim 47.

B.   Claims 52-53, 62-63 and 71-72 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected claims 52-53, 62-63 and 71-72 under 35 U.S.C. § 103(a) based on Deo in view of Aguilar in view of Parry, and further in view of U.S. Patent No. 5,970,252 to Buxton et al. (hereinafter "Buxton"). In view of the above amendments to the claims and the following remarks, Applicants respectfully request that this rejection be withdrawn.

Claims 52-53 depend either directly or indirectly from independent claim 47. Claims 62-63 depend either directly or indirectly from independent claim 57. Claims 71-72 depend either directly or indirectly from independent claim 67. As discussed above, the combination of Deo, Aguilar and Parry does not teach or suggest all of the elements in independent claims 47, 57 and 67. Buxton was cited in connection with a claim element that is not present in independent claims 47, 57 and 67.
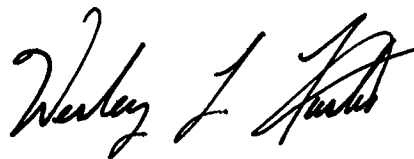
Applicants respectfully submit that the combination of Deo, Aguilar, Parry and Buxton does not teach or suggest all of the elements in independent claims 47, 57 and 67. Accordingly, in view of the arguments presented above in connection with independent claims 47, 57 and 67, Applicants respectfully request that the rejection of dependent claims 52-53, 62-63 and 71-72 be withdrawn.

C.   Conclusion

Applicants respectfully assert that all pending claims are patentably distinct from the cited references, and request that a timely Notice of Allowance be issued in this case. If there are any remaining issues preventing allowance of the pending claims that may be clarified by telephone, the Examiner is requested to call the undersigned.

Respectfully submitted,

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